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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,869	06/23/2006	Giovanni Cotticelli	59130-8012.US01	6768
22918	7590	10/12/2007	EXAMINER	
PERKINS COIE LLP			CHANDRAKUMAR, NIZAL S	
P.O. BOX 2168			ART UNIT	
MENLO PARK, CA 94026			PAPER NUMBER	
			1625	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,869

Applicant(s)

COTTICELLI ET AL.

Examiner

Nizal S. Chandrakumar

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1625

DETAILED ACTION

This application filed 06/23/2006 is a 371 of PCT/EP04/52626 10/22/2004; EUROPEAN PATENT OFFICE (EPO) 03425693.3 10/28/2003. Claims 1-25 are before the Examiner.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1, 9, 10-13, 19-22 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. In claim 1, 12 (and dependent claim 13) the term 'labile ester' is unclear as to its meaning. Any ester could be labile depending on what the reaction condition is. Furthermore, the process step (b) is drawn to cyclization reaction; as such with regards to phosphine, the claim misses an essential element; the missing element is DEAD.

Claims 9 recites 'orto' for ortho. Likewise, many technical terms in other claims as well as in the specification are misspelled. Appropriate correction is recommended.

In Claim 10 the description of concentration ranges is vague. It is unclear what the percent weight relates to: what weight percent of acid is in what?

Claims 12 and 11 are missing an essential reagent needed for the process (see above).

Claims 19-22 the temperature ranges in these claims are not represented in the art-recognized manner.

4. Claim 25 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12, 13, 24 and 25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for some of the claimed reagents and intermediates, does not reasonably provide enablement for many possible reagents and intermediates claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Enablement is considered in view of the Wands factors (MPEP 2164.01 (a)). These include: (1) breadth of the claims; (2) nature of the invention; (3) state of the prior art; (4) amount of direction provided by the inventor; (5) the level of predictability in the art; (6) the existence of working examples; (7) quantity of experimentation needed to make or use the invention based on the content of the disclosure; and (8) relative skill in the art. All of the factors have been considered with regard to the claim, with the most relevant factors discussed below:

The claims 12-13 are drawn to the formation of generically claimed displaceable ester groups. The working example teaches only the methane sulfonate ester which is well-known in the cyclization of citalopram-diols (see rejection under 35 U.S.C. 103) . The specification does not teach the applicability of relatively less reactive trifluoroacetate ester or the highly reactive triflate ester. However the claims are drawn to these reagents.

Claims 24 and 25 are drawn to the magnesium alkoxide intermediate. The working example provides NMR data as evidence of isolation/possession of this material. It is unclear, based on the working example 1, how the sample for NMR was obtained; was the reaction mixture quenched in a stoichiometric fashion so as to protonate only the primary hydroxyl groups? If not, what is the source of the proton on the primary hydroxyl group? The existence of such unpredictabilities would prevent one of

Art Unit: 1625

ordinary skill in the art from accepting the working examples on its face as universally applicable for all the variables of the claims.

With respect to step (b) of the claimed process, what is enabled is acid catalyzed cyclization, methanesulfonyl chloride mediated cyclization and Mitsunobu-type cyclization.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 and 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosgeso et al. (EP 0171943 A1).

7. The difference is that the prior art teaches the cyclization reaction (step b) is done after the isolation of the product of step (b). The prior art and the instant case, the cyclization is done using strong acid.

8. The cyclization step in the prior art and in the instant case relate to the dehydration of a diol. One skilled in the art interested in reducing the number of steps in the process of preparation of citalopram would be motivated to quench the Grignard reaction with a strong acid because the prior art teaches the formation of the intermediate diol by quenching of the Grignard reaction with a weaker acid (acetic acid) and subsequently treats the product with the stronger acid to effect cyclization.

9. Claims 1, 12-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosgeso et al. (US 4943590).

10. The difference is that the prior art teaches the cyclization reaction (step b) is done after the isolation of the product of step (b).

Art Unit: 1625

11. The cyclization step in the prior art and in the instant case relate to the dehydration of a diol. In the prior art, this is accomplished by dissolving the diol intermediate in dichloromethane and treating the solution with methanesulfonyl chloride and triethylamine to effect the cyclization. In the instant case, in the work-up of the Grignard reaction, the solution (that is the toluene extract) containing the diol intermediate is treated with methanesulfonyl chloride and triethylamine. It is well-known in the art that inert solvents such as dichloromethane and toluene do not participate in the reaction and thus do not modify the outcome of the reaction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nizal S. Chandrakumar whose telephone number is 571-272-6202. The examiner can normally be reached on 8.30 am – 5 pm Monday- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached at 571-272-0867 or Primary Examiner D. Margaret Seaman can be reached at 571-272-0694. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nizal S. Chandrakumar



D. MARGARET SEAMAN
PRIMARY EXAMINER